



# The Fuel Line

GOING PLACES



Dave Martin, Editor

[www.replicarclub.com](http://www.replicarclub.com)

October, 2011

## From the Desk of "El Presidente"

October has arrived and I cannot help but wonder where the year has gone. I am sure most people will not mind 2011 to become a faint memory. I for one would not disagree with that thought. With the economy still in a slow and flat state it is hard to see any light at the end of the tunnel. My mother, who was raised during the great depression, keeps telling me that we do not have it that bad, yet. One just needs to think about what people went through back then when there was almost zero as far as support goes compared to what we have now. Bad, yes, but when thinking of the great depression you realize we still have it good thanks to what our parents and grandparents lived through. When they did start coming out of it they ran into a little conflict called WWII! No wonder Tom Brokaw called them the Greatest Generation.

The first of this month I and the wife are headed up to Bishop, with the cobra, for the Fall Colors car show put on by the Owens Valley Cursors. Always a good time and beautiful scenery and also checking on our property up in Paradise, to make sure it's still there.

Nothing to report yet on finalization of next year's show. But it is getting closer to having a companion track event going on and our show the weekend of April 28<sup>th</sup> 2012. When it is all finalized we will get it posted on the web and a press release. The times being what they are it certainly makes it a lot harder to get events like this to come together.

"Kit Cars on the Colorado" is happening the weekend of the 22<sup>nd</sup> this month, great cars, good people, a little gambling and best of all Karaoke. I am looking forward for a great weekend with the free spirits known as the Arizona Cobras, those wild and crazy guys and gals from the independent state of Arizona. If you are going

the AHA group is planning to meet at Peggy Sue's in Yermo at 10am on Friday for a little late breakfast before heading over to Laughlin. Hope to see you there.

Our annual board member elections are this month. Ballots are in the news letter. Your vote is appreciated.

Our next regular board meeting will be at the San Dimas Sizzler on Saturday November 12th at 11AM. We will get some planning in for next year's events and club calendar and finalize our Holiday event in December. If you can attend please do and let us have some input on what next year should look like.

Until next month,

Hasta!

"El Presidente" Dean Hornbacher

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## The Editors Rack—Dave Martin

I'm still struggling with tuning of the 6-pack set up on the Coupe. I'm really fighting this thing as the nature of my engine does not lend it self for off the shelf parts or solutions.

I originally installed an air/fuel gauge and a vacuum gauge under the hood in order to "help" me tune the carburetors. Along with a clip on tach I should have all the info necessary to tune a Holley - at idle at least. I had selected Stewart Warner Competition Air Fuel gauges so as to complement what I decided to run in the dash. These are very nice digital 20 LED readout gauges that will display the air/fuel mixture in a colored arc over the dials face. The center portion - indicating optimum balance displays as amber LED's and of course you'd like the reading to be dead center of ten as much as possible. To the left the LED's will turn "green" indicating a rich condition - I'm burning more fuel than oxygen and so to the right they turn "red" indicating a lean condition. Green is bad but red is really bad for the motor. The gauges take their measurements from a set of O2 sensors screwed into welded on bung ports on the collector of my headers. These were "general" Bosch single wire, narrow band sensors. Single wire just means there is no internal heater as part of the sensor so I won't get accurate readings until the exhaust gasses get the temperature above 500 degrees F.

Almost all production cars today utilize these narrow band sensors - some with heaters and some with out - and are necessary for the onboard computers to keep the EFI properly tuned. Racers and some performance cars use "wideband" sensors to read the same information and all wideband sensors have internal heaters.

What's the difference?

Well... narrow band sensors read back a range from 0 - 1 volt so for my Stewart Warner gauge to see the LED move by one the sensor only needs to put out .05 volts difference (that's 50milivolts) which can easily be lost in the cabling to the gauge let alone the accuracy of the circuitry inside the gauge. In other words the margin of error in reading true air fuel readings is pretty high. It's good enough to let you see an order of magnitude condition, too rich, too lean, or trending to one side or the other but not good enough to dial in the carbs.

A wideband sensor reads back from 0 to 5 volts so each LED has .25 volts (that's now 250milivolts) to

respond to so accuracy is greatly increased. Most wideband gauges are designed with much more accurate circuitry for interpreting the sensor data and most also include links for actually data logging the output of the gauge to performance software onto your computer or PDA.

Ok, so where was I?

Right... tuning 3 Holley Carburetors in sync. I talked to a lot of people at various cruise ins and car shows lately and even though everybody has a different opinion on what I should do to get a particular problem solved - that a story for a different time - they all universally agree that trying to tune with unheated narrow band gauges was going to be frustrating and not yield me the results I wanted so out came the narrow band ones and in went a set of Innovate gauges ([www.innovatemotorsports.com](http://www.innovatemotorsports.com)). Right off the top just doing a baseline (not touching any engine settings) I found the Innovate gauges to read less rich than the narrow band ones by about 3 LED's worth - the Innovate gauges have both a 20 LED outer ring along with an accurate 3 digit numerical readout. The Innovate gauges also calibrate to that specific wideband sensor so accuracy should be pretty high.

Ideally gasoline engines should be about 14.7 Stoichiometric ratio. Dialing the carbs into this was very easy at idle so I think I'm on my way now to truly getting this setup working properly. More later...

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## From the Bean Counter — Dave Martin

**You'll find the 2012 Ballot for our Board of Directors in this newsletter. This is your opportunity to make your voices heard and participate in the club, it's events, and it's direction.**

**Please take the time to vote. You can return the ballot to the address indicated or you can vote online by sending your choices to [info@replicarclub.com](mailto:info@replicarclub.com) by the end of October.**

**Anyone interested in adding themselves to the ballot, please do. Write in ballots are encouraged.**

**Results will be announced in November**

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## Activities -

### Car Cruise To Laughlin

The Association of Handcrafted Automobiles and the Arizona Cobra Club will be hosting the annual meeting of the California and Arizona car clubs at the luxurious Don Laughlin Riverside Resort in the town of Laughlin, Nevada on the weekend of October 22nd - 23rd, 2011. Registration forms are included in this newsletter or are available on [www.replicarclub.com](http://www.replicarclub.com).

Caravan in on Friday afternoon, October 21<sup>st</sup> and make it a weekend of fun by the river. We'll meet at Peggy Sues just north of Barstow on Interstate 15 at 10am Friday morning. For reservations at Don Laughlin's Riverside Hotel call 1-800-227-3849 Option 1. A standard 48 hour cancellation rule applies. Questions may be directed to Ron Biggerstaff at (909) 796-9946.

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### Membership – Ron Biggerstaff

No Updates

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### 2011 Calendar of Events

**October 22nd-23rd** - Kit Cars on the Colorado - Riverside Resort/Casino, Laughlin, Nv.

[www.riversideresort.com](http://www.riversideresort.com)

**November 12th** - Club Meeting @ 11am - Sizzlers, San Dimas - Arrow Highway

**December 10th** - Club Holiday Brunch - Panda Inn. 3488 East Foothill Blvd. Pasadena, CA. (626)793-7300

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### Items for Sale

(items for sale is a free service to club members)

#### For Sale

**Magnum Replica of a Dino GT246** - This bright yellow baby was built in 1989 and currently has 29k miles on it. The car has won over 31 awards and was featured in *Kit Car Illustrated* magazine in October 2001 along with being featured on Speed Vision in January of 2002 on their "Car Crazy" segment.

The Engine is a 1984 Mazda Rotary with a 1971 Porsche 911 5 speed transaxle. Compomotive wheels. The interior is all custom with VDO black faced analog gauges, wood trimmed dash and tilt wheel. Clarion S600 AM/FM stereo. Black leather seats. A great road car at a great price. \$18,000

Contact Mike Dresbach (909) 657-0422 or email [mike@rkitkar.com](mailto:mike@rkitkar.com)

#### For Sale

**1952 MGTD FIBERFAB Kit Car.** This show car has 21,000 miles and is powered by the 2.3 Ford Pinto engine with auto transmission and running gear. Great running car with top, side curtains, and zippered tonneau cover as well. The car has won numerous car show awards and has been shown at our AHA Knott's Berry Farm shows and other South Bay area car shows and it's always an attention getter. Asking \$7500 for this turn key car show beauty.

Contact James Gonzalez (562) 595-0992 or email: [GONZNM0@AOL.COM](mailto:GONZNM0@AOL.COM)

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